



Armed Forces College of Medicine

AFCM



Neuroscience module

Clinical Integrated Cases

Pretest 3

Question 1



Which of the following cerebellar lobes control the muscle tone of the trunk muscles?

- a. Archicerebellum
- b. Vermal part of the paleocerebellum
- c. Paravermal part of the paleocerebellum
- d. Neocerebellum
- e. Archicerebellum and neocerebellum

Question 2



Which of the following are separated by the posterolateral fissure?

- a. The superior and the inferior surfaces.
- b. The anterior and the posterior lobes.
- c. The flocculonodular and the anterior lobes.
- d. The posterior and the flocculonodular lobes.
- e. The vermis from the posterior lobe.

Question 3



Which of the following provides the only output from the cerebellar cortex?

- a. Purkinje cells
- b. Golgi cells
- c. Granule cells
- d. Mossy fibers
- e. Parallel fibers

Question 4



Which of the following cell types has an excitatory function?

- a. Basket cell
- b. Golgi cell
- c. Granule cell
- d. Purkinje cell
- e. Stellate cell

Question 5



What is the expected gait pattern in a patient with a cerebellar lesion?

- A. Shuffling gait
- B. Circumduction gait
- C. Steppage gait
- D. Stamping gait
- E. Ataxic gait

Question 6



What is the sign that can be detected in a patient with a cerebellar lesion?

- A. Positive Romberg test
- B. Spastic paralysis
- C. Kinetic tremors
- D. Sensory loss
- E. Flaccid paralysis

Question 7



Which of the following vitamins is required for conversion of glutamate into GABA?

- a. Vitamin B1
- b. Vitamin B2
- c. Vitamin B3
- d. Vitamin B5
- e. Vitamin B6

Question 8



Which enzyme is involved in the synthesis of GABA?

- a. Glutamate dehydrogenase
- b. Glutamic acid decarboxylase
- c. Glutamine synthetase
- d. Glutaminase
- e. Glutamate oxaloacetate aminotransferase

Question 9



35 years old patient presented with symptoms and signs of cerebellar ataxia. Which of the following could exist during his neuroexam?

- a. Resting tremors
- b. Intention kinetic tremors
- c. Scissoring gait
- d. Lower limb spasticity.
- e. Waddling gait

Question 10



Which of the following characterizes the gait of a patient presented with cerebellar ataxia?

- a. High steppage gait
- b. Shuffling gait
- c. Scissoring gait
- d. Wide-base gait
- e. Waddling

Question 11



A 30 year old male patient, developed rapid onset of swaying of gait, with tremors in his right hand. On examination the doctor find which of the following?

- a. rigidity on the right upper limb
- b. spasticity on the right lower limb
- c. decrease tone on the right upper limb
- d. lost deep tendon reflexes on the right side
- e. Atrophy of the lower limbs

Question 12



Magnetic resonance imaging of a 44-old-man reveals a lesion in the cerebellar vermis. Which of the following symptoms would this patient most likely have?

- a. Difficulty maintaining balance
- b. Dysdiadokinesia
- c. Intention tremor
- d. Nystagmus
- e. Scanning dysarthria



Thank
you

